

6. ANNOTATED CHECK LIST AND BIBLIOGRAPHY OF CORALS OF THE CHAGOS
ARCHIPELAGO (INCLUDING THE RECENT COLLECTION FROM
DIEGO GARCIA), WITH REMARKS ON THEIR DISTRIBUTION

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INTRODUCTION

The coral faunae of the Red Sea, Maldives, Southern India, Ceylon, Bay of Bengal, Cocos Keeling, Singapore and the Indonesian region are relatively well known. To the south and east, however, the central western Indian Ocean (which includes the Seychelles, Comoros, Mascarenes, Chagos, Madagascar and the East African coast) perhaps deserve further attention. No synthesis of coral records from Chagos has been published before, as far as is known, and the coral list which follows therefore fills this gap, and also provides further information about the region as a whole. The coral list is based on three collections:

1. That of G. C. Bourne from Diego Garcia, in 1885,
2. that of J. Stanley Gardiner et al., during the Percy Sladen Expedition to the Indian Ocean in 1905,
3. that of J. D. Taylor made during his recent visit to Diego Garcia, July, 1967. This consists of about 100 specimens identified for the present paper.

Publication of the first two collections has never been completed, but a reasonably representative picture of the Chagos coral fauna could hitherto be obtained by combining the two sets of appropriate publications. Only Bourne's *Astrocoeniina* and *Poritidae* are well covered by the literature, whereas these are precisely the groups in the Sladen collection which are still undescribed. Additional coral names are also to be found in general accounts of the islands, but these usually consist of generic names only (Bourne, 1888; Gardiner, 1936; Gardiner & Cooper, 1907). Knowledge of the Chagos corals is however rather uneven, since Diego Garcia is not really represented by Sladen material, while Bourne and Taylor only visited (as intended) Diego Garcia. With the completion of the present list, Diego Garcia is now best known of the four principal atolls with regard to its corals (see table 6).

The corals from all three visits are part of the collection in the British Museum (Natural History), London. A considerable number of specimens from the previous two visits have been examined by the author in the course of this and other work, but although some changes are in fact necessary, no attempt has been made here to revise names or synonymies. Names have only been changed where current usage requires this. Such instances will be clear from the list, which must, however, be regarded as provisional.

While other expeditions have visited the Chagos group, no coral collections appear to have been made by them.

REMARKS ON THE CORAL FAUNA

1. Genera

The total of 54 genera and subgenera, shown in Table 5, includes 42 hermatypic scleractinians. It is interesting to compare this figure with data given in Wells' map (1954, pl. 186). For the comparison to be valid however the subgenera of Fungia must be taken as a single genus (the map is earlier than Wells' 1966 subdivision of Fungia), and Agariciella disregarded. The adjusted figure then becomes 38, which is slightly lower than the figure interpolated from Wells' map (40-45). This anomaly is probably an indication of incomplete collecting, especially in deeper water. Relatively little dredging has been done in the course of the three principal visits to the archipelago. Hence deeper water sampling together with further surface reef collecting and examination of unpublished material in the British Museum (Natural History) may produce specimens of Psammocora (Plesioseris), P. (Stephanaria), Pavona (Polyastra), Merulina, and a number of widespread, though not abundant representatives of the Fungiidae and Pectiniidae. With regard to the first of these families, Wells' map (1966, Fig. 5) predicts a further three genera and one subgenus (see note in check list), whilst the second is noticeably not represented at all yet.

Of those genera recorded, Siderastrea, Agariciella and Ctenella are noteworthy. The first is unfortunately only a sight record and may possibly have referred to a Pavona, as explained in the check list. Siderastrea is one of the few genera known both from the West Indian and Indo-Pacific regions, though Indo-Pacific species are restricted to the western Indian Ocean. If Gardiner's record is confirmed, Chagos will be the easternmost limit of its known distribution in southern tropical waters. Ctenella is a very rare genus known only from Chagos and the Saya de Malha bank to the south of the Seychelles. Agariciella (usually as "Agaricia") is a third genus of rare occurrence. Its distribution may also be restricted, but confusion with Pavona (Polyastra) obscures any pattern that may exist. Other less common genera known from Chagos include Plerogyra and Oulophyllia.

Of the eight genera known only from sight records, four are hermatypic scleractinians: Seriatopora, Alveopora, Euphyllia and, as already mentioned, Siderastrea. Two are ahermatypic (Fungiacyathus and Madrepora) and the remaining two are non-scleractinians (Stylaster and Heliopora).

The scleractinian fauna is almost entirely hermatypic. This is in accord with the above conclusion that relatively little sampling has been done in deeper water. Of the four ahermatypic genera, two are only sight records (Fungiacyathus and Madrepora), and the other two are

Table 5. Genera and subgenera collected by expeditions to the Chagos Archipelago

Investigators	Genera for each visit		New records		Net total of different genera	
	Sight records	specimens and sight records	sight records	specimens and sight records	sight records	specimens and sight records
Bourne (in 1885)	5	11	5	11	5	11
Gardiner (in 1905)	15	48	10	38	12	49
Taylor (in 1967)	0	26	0	5	8	54

Table 6. Genera and species recorded from each atoll*

	Diego Garcia	Egmont	Peros Banhos	Salomon	Whole group
Total number of genera and sub-genera	28	19	21	40	54
Number of hermatypic Scleractinian genera and subgenera	25	16	16	29	42
ditto, adjusted for comparison with Wells (1954)	23	13	16	26	38
Total number of species (approx.)	64	23	24	56	107
Number of hermatypic Scleractinian species (approx.)	60	20	20	44	91.

* 1 genus (1 species?) was also recorded from banks to the southeast of the group, but this does not alter final column.

probably from shallow water (Balanophyllia and Dendrophyllia). Horst's (1926) descriptions give no depths for the latter.

The depth range of dredging (Percy Sladen Expedition only) is 0.1098 m. Dredging in waters deeper than about 20 m was mainly done in the vicinity of Salomon. Five out of eight non-scleractinian genera were dredged, all of them from this area, as were Fungiacyathus and Madrepora.

Non-scleractinian genera are mostly from deep water, however (five out of eight).

2. Species

The value of conclusions made on the basis of species-level consideration is open to doubt because of the severity of the species-problem in corals. Following Bourne's visit to Diego Garcia, there were about 20 species known from Chagos. Gardiner's Sladen Expedition visit to the group raised this figure to about 75, and Taylor's to Diego Garcia to about 105. Of these 91 are hermatypic Scleractinia, a figure which may be compared with some of the surface reef species figures given by Wells (1954, 395): 150 in the Marshalls, Palau Islands, and Fiji, 155 in the Philippines and 200 in the Great Barrier Reef region. The Chagos fauna thus appears small, as is also indicated by the number of genera present there. The difference however is in approximate proportion to the number of genera present, though this has been shown above to be somewhat lower than expected, probably on account of incomplete collecting. The true number of species should probably be about 120-140, assuming no radical differences in species definitions. Further species may be provided by the predicted but unrecorded genera mentioned above, together with further species of Psammocora, Seriatopora, Acropora, Montipora, Goniopora, Synaraea and Goniastrea. Noticeably absent are staghorn species of Acropora, A. humilis and Goniastrea retiformis. On the other hand, comparison and examination of existing Chagos specimens of Acropora, Montipora and Porites may well show some of those listed to be the same.

Other points relevant here have already been made in the preceding section.

3. Individual atolls

Table 6 shows that the coral faunae of Diego Garcia and Salomon are better known than those of Egmont and Peros Banhos. This is a more probable explanation of the different numbers of genera and species than an ecological one. The table shows that more genera have been recorded from Salomon than Diego Garcia, but more species from Diego Garcia. The difference in genera is largely made up of ahermatypic and non-scleractinian corals, most of which are from depths greater than 60 fms (109m). There is no record of dredging round Diego Garcia. A second factor originates with the published collection lists. Previous to Taylor's

visit, the Diego Garcia corals that had been described and published were mainly Astrocoeniina, i.e. few genera represented by a relatively high number of species. For Salomon, visited by Gardiner, the Faviina and Fungiina were the most important of the published groups, these consist of relatively few species within each genus. Gardiner apparently collected very few corals in Diego Garcia. Whilst Taylor's collection substantially balances the picture for Diego Garcia, Salomon (and the other two atolls) remain better known for their Faviina and Fungiina alone. Relevant material in fact awaits examination in the British Museum (Natural History).

Taylor's collection adds 19 genera and subgenera to the coral list from Diego Garcia, 17 of these being hermatypic Scleractinia. About 40 species have been added. Comparison of these figures with Table 6 shows that previous to his visit, this atoll was least well represented.

CORAL CHECK LIST

In the following list:

- * indicates new records for the Chagos Archipelago,
- (*) indicates species or genera whose only previous record from Chagos was a sight record, and
- sr indicates sight records.

The three principal collections are indicated under each species by the initials of the three investigators concerned; thus, B (Bourne), G (Gardiner) and T (Taylor), and localities given for each, followed by references and comments where applicable. When a genus has been recorded without a species name in a general, non-systematic work, this has been quoted under the generic name concerned. It is assumed that more than one species may have been covered by such references. References in systematic papers (e.g. Allopora sp.) are listed as species.

Classification from Wells, 1956.

Class	ANTHOZOA
Subclass	ZOANTHARIA
Order	<u>Scleractinia</u>
Suborder	<u>Astrocoeniina</u>
Family	ASTROCOENIIDAE
Subfamily	Astrocoeniinae

* Stylocoeniella

- * Stylocoeniella armata (Ehrenberg)

T: Diego Garcia - Lagoon, East Point.

Family THAMNASTERIIDAE

Psammocora

- sr G: "submerged banks to the south-east" of the Chagos group (Gardiner & Cooper, 1907: 54)

Psammocora planipora Edwards & Haime
G: Salomon (Horst, 1922: 425)

Family POCILLOPORIDAE

(*) Stylophora

- sr G: Diego Garcia (Gardiner, 1936: 420)
- sr Egmont (Gardiner, 1936: 414, 415; Gardiner & Cooper, 1907: 53)
- sr Peros Banhos - Coin 5-10fms (9-18m) (Gardiner & Cooper, 1907: 38)
- sr Salomon (Gardiner & Cooper, 1907: 36) and down to 10fms (18m) (Gardiner, 1936: 406, 407, 409)

* Stylophora pistillata (Esper)

T: Diego Garcia - North Point Lagoon and Lagoon Reef East Point

* Stylophora mordax (Dana)

T: Diego Garcia - algal ridge North West Point.

Seriatopora

- sr G: Salomon (Gardiner, 1936: 408)

Seriatopora stricta Brueggemann

- sr B: Diego Garcia (Bourne, 1888: 450)

(*) Pocillopora

- sr B: Diego Garcia (Bourne, 1888: 450)
- sr G: Salomon (Gardiner, 1936: 404, 407)
- sr Peros Banhos - Ile du Coin, 5-10fms (9-18m) (Gardiner & Cooper, 1907: 38)

* Pocillopora eydouxi Edwards & Haime

T: Diego Garcia - algal ridge North West Point

* Pocillopora damicornis (Linnaeus)

T: Diego Garcia - windward reef South Point, North Point lagoon, Cust Point.

* Pocillopora danae Verrill

T: Diego Garcia - windward reef South Point.

Family ACROPORIDAE

Acropora

- sr B: Diego Garcia (Bourne, 1888: 450, as Madrepora)
- sr G: Egmont (Gardiner, 1936: 414)
- sr Peros Banhos - Ile du Coin, 5-10fms (9-18m) (Gardiner & Cooper, 1907: 38, as Madrepora)
- sr Salomon, less than 10fms (18m) (Gardiner, 1936: 404-410; "Madrepora" dredged from less than 10fms, p. 409 is probably Acropora)

Acropora aspera (Dana)

sr B: Diego Garcia (Bourne, 1888: 454, as Madrepora aspera)

Acropora cytherea Dana ?

B: Diego Garcia (Brook, 1893: 99, as Madrepora ?cytherea)

* Acropora sp.cf. cymbicyathus (Brook)

T: Diego Garcia - windward reef South Point.

Acropora disticha Brook

B: Diego Garcia. TYPES (Brook, 1893: 84, pl. 33, fig. D, as M. disticha)

T: Diego Garcia - windward reef South Point, algal ridge East Point. These specimens are intergradational with A. murrayensis Vaughan

Acropora diversa (Brook)

B: Diego Garcia TYPE (Brook, 1891: 461, 1893: 141, pl. 16, fig. B, as M. diversa)

Acropora eurystoma (Klunzinger)

B: Diego Garcia (Brook, 1893: 137 as M. eurystoma and M. eurystoma var. parvula Brook)

* Acropora glochicladus (Brook)

T: Diego Garcia - North Point lagoon.

Acropora haimeii (Edwards & Haime) ?

B: Diego Garcia (Brook, 1893: 77, as Madrepora ?haimeii)

Acropora hyacinthus (Dana)

B: Diego Garcia (Brook, 1892: 452, 1893: 100, TYPES in part of Madrepora armata. See synonymy, Wells, 1954: 421)

* Acropora murrayensis Vaughan

T: Diego Garcia - windward reef South Point.

Acropora palifera (Lamarck)

B: Diego Garcia (Brook, 1893: 131)

T: Diego Garcia - North Point lagoon.

* Acropora reticulata (Brook)

T: Diego Garcia - North Point lagoon.

* Astreopora* Astreopora ocellata Bernard

T: Diego Garcia - lagoon flats immediately North of East Point, lagoon North Point, lagoon reef East Point.

Montipora

- sr G: Salomon, down to 5fms (9m). (Gardiner, 1936: 406-410)
 sr Diego Garcia (Gardiner, 1936: 420)

- * Montipora sp.cf. brueggemanni Bernard
 T: Diego Garcia - lagoon reef East Point.

- * Montipora edwardsi Bernard
 T: Diego Garcia - lagoon East Point.

Montipora effusa (Dana)
 B: Diego Garcia (Bernard, 1897: 144)

- * Montipora sp.cf. hispidus (Dana)
 T: Diego Garcia - lagoon flats immediately north of East Point

Montipora lobulata Bernard
 B: Diego Garcia. TYPE. (Bernard, 1897: 76, pl. 16)

- * Montipora sp.cf. tuberculosa (Lamarck)
 T: Diego Garcia - lagoon flats immediately north of East Point, lagoon North Point, lagoon reef East Point.

- * Montipora sp.
 T: Diego Garcia - lagoon reef East Point. Coral has grown round stems of Cymodocea (= Thalassodendron) weed.

Suborder Fungiina
 Superfamily AGARICIICAE
 Family AGARICIIDAE

Pavona

- sr G: Salomon, down to 10fms (18m) (Gardiner, 1936: 408, 409)
 "Siderastrea" (Gardiner & Cooper, 1907: 38), from Ile du Coin, Peros Banhos, less than 4fms (7m), may have referred to Pavona

Pavona explanulata (Lamarck)
 G: Salomon (Horst, 1922: 418); (sr - Gardiner, 1936: 405)

Pavona varians Verrill
 G: Egmont (Horst, 1922: 419)
 Peros Banhos (ibid.)
 Salomon (ibid.)
 T: Diego Garcia - lagoon North Point.

Pavona clavus Dana
 G: Egmont (Horst, 1922: 420)
 Salomon (ibid.)

AgariciellaAgariciella ponderosa (Gardiner)G: Salomon (Horst, 1922: 418, as Agaricia ponderosa)LeptoserisLeptoseris incrustans (Quelch)

G: Peros Banhos, 15-16 fms (27-29m) (Horst, 1922: 422)

PachyserisPachyseris levicollis (Dana)

G: Salomon (Horst, 1922: 427)

Family SIDERASTREIDAE

sr Siderastrea

(?) G: Peros Banhos - Ile du Coin, less than 4 fms (7m)
 (Gardiner & Cooper, 1907: 38. This may have been
Pavona; see for instance Gardiner, 1906: 934-936, for
 then current concept of Siderastrea.)

Superfamily FUNGIICAE

Family FUNGIIDAE

In addition to those genera listed below, Wells' map (1966: fig. 5) indicates that the Chagos archipelago lies within the limits of the known geographical distribution of Cycloseris, Fungia (Ctenactis), Polyphyllia, and Podabacia.

Fungia

sr G: Salomon (Gardiner, 1936: 406)

Fungia sp. Authocaulus stage (ca. 5 mm diam.)

T: Diego Garcia

Fungia (Pleuractis) scutaria Lamarck

G: Egmont (Gardiner, 1909: 267, 272)

Peros Banhos (ibid.)

Salomon (ibid.)

T: Diego Garcia - windward reef South Point.

Fungia (Verrillofungia) concinna Verrill

G: Egmont (Gardiner, 1909: 267, 276)

Salomon (ibid.)

Fungia (Verrillofungia) fieldi Gardiner

G: Salomon, TYPE (Gardiner, 1909: 267, 277, pl. 33, figs.
 3, 4, pl. 34, fig. 7)

- * Fungia (Verrillofungia) repanda Dana
T: Diego Garcia - lagoon flats immediately north of East Point.

Fungia (Danafungia) corona Döderlein
G: Egmont (Gardiner, 1909: 267, 278)

Fungia (Fungia) fungites (Linnaeus)
sr B: Diego Garcia (Bourne, 1888: 450, as Fungia dentata Dana. See Döderlein, 1902: 136)
G: Egmont (Gardiner, 1909: 267, 279)
Salomon (ibid.)

* Herpolitha

- * Herpolitha limax (Esper)
T: Diego Garcia - lagoon flats immediately north of East Point, lagoon North Point.

Halomitra Dana

Halomitra philippensis Studer
B: Diego Garcia (Gardiner, 1909: 281)
G: Salomon (ibid. "protected reefs of lagoon lying free in holes, between large fixed growths of massive corals.")
T: Diego Garcia - lagoon flats immediately north of East Point, lagoon East Point.

Fungiacyathus

sr G: off Salomon, 350-600fms. (640-1098m) (Gardiner & Cooper, 1907: 42), as Bathyactis.

Superfamily PORITICAE

Family PORITIDAE

(*) Goniopora

sr G: Salomon, less than 10fms (18m) (Gardiner 1936: 409)

- * Goniopora sp.cf. savignyi Dana

T: Diego Garcia - lagoon flats immediately north of East Point, lagoon reef East Point. The specimens are identical to Goniopora "xd" Bernard, 1903: 158, pl. 8, fig. 5. This was previously identified as G. savignyi Dana by Brueggemann (MS) but Bernard states that this is "out of the question."

Porites

sr B: Diego Garcia (Bourne, 1888: 450, 454)
sr G: Diego Garcia (Gardiner, 1936: 420; Gardiner & Cooper, 1907: 46)
sr Egmont (Gardiner, 1936: 414)

- sr Peros Banhos (Gardiner, 1936: 423) - Ile du Coin, less than 4fms (7m) (Gardiner & Cooper, 1907: 38)
 sr Salomon down to 10fms (18m) (Gardiner, 1936: 400-410)

Porites (Porites) "Diego Garcia (3) 1 Bernard"

B: Diego Garcia (Bernard, 1905: 216, pl. 32, fig. 1)

Porites (Porites) "Diego Garcia (3) 2 Bernard"

B: Diego Garcia (Bernard, 1905: 216, pl. 32, fig. 2)

Porites (Porites) "Diego Garcia (3) 3 Bernard"

B: Diego Garcia (Bernard, 1905: 217, pl. 32, fig. 3, pl. 34, fig. 4)

* Porites (Porites) lutea Edwards & Haime

T: Diego Garcia - lagoon flats immediately north of East Point, lagoon reef East Point, Cust Point. Wells (1954: 453) states that this species "does not appear to occur in the Red Sea or Indian Ocean." Preliminary examination suggested that this was the closest species, but further study may lead to an alternative identification.

* Porites (Porites) solida (Forskål)

T: Diego Garcia - lagoon reef East Point.

* Porites (Porites) australensis Vaughan

T: Diego Garcia - lagoon North Point.

* Porites (Porites) lichen Dana

T: Diego Garcia - windward reef South Point.

* Porites (Porites) andrewsi Vaughan

T: Diego Garcia - lagoon reef East Point, Cust Point.

* Porites (Porites) nigrescens Dana

T: Diego Garcia - Cust Point.

* Porites (Synaraea) iwayamaensis Eguchi

T: Diego Garcia - lagoon North Point, lagoon reef East Point, lagoon East Point.

Alveopora

- sr G: Peros Banhos - Ile Diamant, 15fms (27m) (Gardiner & Cooper, 1907: 28)
 sr Salomon (Gardiner, 1936: 409)

Suborder	<u>Faviina</u>
Superfamily	<u>FAVITICAE</u>
Family	<u>FAVIIDAE</u>
Subfamily	<u>Faviinae</u>

Gardiner & Cooper (1909: 28, 38) give sight records of Orbicella from Peros Banhos, but Gardiner's use of this generic name (e.g. see Gardiner, 1906: 774-778) makes it difficult to interpret which form(s) he was referring to. Orbicella sensu Gardiner might correspond in current usage to Diploastrea, Leptastrea, Plesiastrea, or Favia. It would therefore appear to be safer to omit it from the list. Caution is also required in interpreting Prionastrea, Favia and Goniastrea as given by Gardiner (1936) and Gardiner & Cooper (1907) but in general these may be taken to correspond to more recent concepts of Favites, Favia and Goniastrea respectively (but note Matthai's 1914 usage of Favia, which Gardiner might conceivably have adopted). Confusion of nomenclature has also surrounded the brain corals. Maeandra, Maeandrina, Coeloria, Platygyra and Leptoria have all been used to refer to representatives of the last two named genera. Thus Bourne's (1888) sight record of "Maeandrina" might have meant Platygyra, Leptoria or even a number of other genera. Like Orbicella above it would therefore be safer to omit it.

Plesiastrea

Plesiastrea versipora (Lamarck)

G: Salomon (sr - Gardiner, 1936: 407; Matthai, 1914: 103, both as Favia versipora. See synonymies in Yabe, Sugiyama & Eguchi, 1936: 23, Orbicella versipora, and Wells, 1954: 460)

Favia

sr G: Egmont (Gardiner, 1936: 414)
sr Salomon (ibid, 405, 409)

Favia stelligera (Dana)

sr B: Diego Garcia (Bourne, 1888: 450 as F. lobata.) See synonymy Vaughan 1918: 101)
G: Egmont (Matthai, 1914: 102, as F. acropora. See synonymy Vaughan, 1918: 101)
Salomon (Matthai, 1914: 102, pl. 25, fig. 3, pl. 33, fig. 1, as F. acropora).
T: Diego Garcia - lagoon North Point.

Favia favius (Forskål)

G: Salomon (Matthai, 1914: 79)
T: Diego Garcia - lagoon flats immediately North of East Point, lagoon reef East Point. Specimen from latter locality is intergradational with F. pallida.

Favia pallida (Dana)

G: Peros Banhos - Ile du Coin (Matthai, 1914: 84 as F. doreyensis)
Salomon (sr - Gardiner, 1936: 407; Matthai, 1914: 84. Both as F. doreyensis. See synonymy Vaughan, 1918: 105).
T: Diego Garcia - lagoon reef East Point.

Favia speciosa (Dana) facies "clouei"

- G: Egmont (Matthai, 1914: 89, as F. clouei. See synonymy Vaughan, 1918: 103)
 Salomon (ibid. Also pl. 25, fig. 2. As F. clouei)

Favites

- sr G: Peros Banhos - Ile Diamant, 15fms (27m) (Gardiner & Cooper, 1907: 28, as Prionastrea) and Ile du Coin, less than 4 fms (7m) (ibid. 38, as Prionastrea)

Favites abdita (Ellis & Solander)

- G: Egmont (Matthai, 1914: 91, as Favia abdita. See synonymy Vaughan, 1918: 109)
 Salomon (ibid. Also pl. 9, fig. 5, as F. abdita) Favia orbita (Gardiner, 1936: 405) from Salomon may be this species (sr)
 T: Diego Garcia - lagoon North Point.

Favites halicora (Ehrenberg)

- G: Egmont? (Matthai, 1914: 106, as Favia halicora. See synonymy Vaughan, 1918: 110)
 Peros Banhos - Ile Diamant, 15fms (27m) (ibid., as F. halicora)
 Salomon (ibid. Also pl. 26, figs. 5-7, as F. halicora)
 T: Diego Garcia - lagoon North Point.

Favites virens (Dana)

- G: Egmont (Matthai, 1914: 108, pl. 27, fig. 3, as Favia vasta. See synonymy Vaughan, 1918: 111)
 Salomon (Matthai, 1914: 108, pl. 27, fig. 5, as F. vasta)

Favites melicerum (Ehrenberg)

- G: Salomon (Matthai, 1914: 95, as Favia pentagona. See synonymy Vaughan, 1918: 112)

* Favites aspera (Verrill)

- T: Diego Garcia - windward reef South Point.

* Favites yamanarii Yabe & Sugiyama

- T: Diego Garcia - windward reef South Point, algal ridge East Point.

OulophylliaOulophyllia crispa (Lamarck)

- G: Salomon (Matthai, 1928: 257, pl. 19, fig. 2)

Goniastrea

- sr G: Peros Banhos - Ile du Coin, less than 4fms (7m) (Gardiner & Cooper, 1907: 38)

sr Salomon (Gardiner, 1936: 405)

Goniastrea? hombroni (Rousseau)

G: Salomon (Matthai, 1914: 107, pl. 26, figs. 1, 2, pl. 33, fig. 2, as Favia hombroni. See Vaughan, 1918: 100)
Professor John W. Wells kindly informs me that he has examined Rousseau's type and says that it is a specimen of Favia stelligera.

Goniastrea pectinata (Ehrenberg)

G: Egmont (Matthai, 1914: 121, pl. 31, fig. 8, as G. planulata. See synonymy Crossland, 1952: 135)
Salomon (sr - Gardiner, 1936: 407, as G. planulata; Matthai, 1914: 121, as G. planulata; Matthai, 1914: 120).

T: Diego Garcia - lagoon North Point.

Platygyra

sr G: Salomon (Gardiner, 1936: 404, 407, as Coeloria)

Platygyra lamellina (Ehrenberg)

* facies astreiformis (Edwards & Haime)

T: Diego Garcia - windward reef South Point, lagoon North Point.

facies sinensis (Edwards & Haime)

G: Salomon (Matthai, 1928: 24, pl. 5, fig. 1, as Coeloria daedalea. See Wells, 1954: 462 and Stephenson & Wells, 1955: 35-36)

* facies rustica (Dana)

G: Diego Garcia - lagoon flats immediately north of East Point, windward reef South Point, lagoon reef East Point.

facies lamellina Ehrenberg

G: Salomon (Matthai, 1928: 37, pl. 6, fig. 5, as Coeloria lamellina. See Stephenson & Wells, 1955: 35-36. Text gives locality as "Chagos"; plate caption gives "Salomon, Chagos".)

* Leptoria

* Leptoria phrygia (Ellis & Solander)

T: Diego Garcia - windward reef South Point.

Hydnophora

Hydnophora exesa (Pallas)

G: Egmont (Matthai, 1928: 140)
Salomon (ibid.)

Hydnophora microconos (Lamarck)

- G: Peros Banhos - Ile du Coin (Matthai, 1928: 144, pl. 17, fig. 4, pl. 49, fig. 5)
 *Salomon (Matthai, 1928: 144)

Subfamily Montastreinae

Leptastrea

- sr G: Salomon (Gardiner, 1936: 405, 409)

Leptastrea purpurea (Dana)

- G: Egmont (Matthai, 1914: 68, as L. ehrenbergana. See synonymy Vaughan, 1918: 91)
 Salomon (Matthai, 1914: 68, pl. 19, fig. 4, as L. ehrenbergana)

The next species may belong here also.

Leptastrea roissyana Edwards & Haime

- G: Salomon (Matthai, 1914: 67. Matthai's concept of this species appears to overlap with that of other authors' L. purpurea and L. transversa, e.g. see Vaughan's discussion of the genus, 1918: 90-97. Crossland, 1952: 114 states that all these intergrade.)

Leptastrea bottae (Edwards & Haime)

- G: Salomon (Matthai, 1914: 69, pl. 18, figs. 3 and 6, as L. solida. See synonymy Vaughan, 1918: 94)

Cyphastrea

- sr G: Salomon (Gardiner 1936: 405)

Cyphastrea chalcidicum Klunzinger

- G: Salomon (Matthai, 1914: 41)

Cyphastrea microphthalma (Lamarck)

- G: Egmont (Matthai, 1914: 43, pl. 12, fig. 6)
 Salomon (Matthai, 1914: 43)
 T: Diego Garcia - lagoon North Point

Echinopora

- sr G: Salomon, down to 10fms (18m) (Gardiner, 1936: 408-409)

Echinopora lamellosa (Esper)

- G: Peros Banhos - Ile du Coin (Matthai, 1914: 50, pl. 14, fig. 4)
 Salomon (Matthai, 1914: 50, pl. 14, fig. 6)
 T: Diego Garcia - lagoon North Point

Echinopora hirsutissima Edwards & Haime

- G: Peros Banhos - Ile du Coin (Matthai, 1914: 51, pl. 15, fig. 2)
 Salomon (Matthai, 1914: 51, pl. 15, fig. 3)

Family OCULINIDAE
Subfamily Oculininae

Madrepora

- sr G: off Salomon, 350-600fms (640-1098m) (Gardiner & Cooper, 1907: 42, as Amphihelia.)

Subfamily Galaxeinae

Galaxea

Galaxea clavus (Dana)

- G: Peros Banhos - Ile du Coin (Matthai, 1914: 62, as G. musicalis. See synonymy Vaughan, 1918: 99)

Galaxea lamarcki Edwards & Haime

- G: Peros Banhos - Ile du Coin, and Ile Diamant 16fms (29m) (Matthai, 1914: 64. This species is close to G. clavus and may only be a deeper water facies of it.)

Family MEANDRINIDAE
Subfamily Meandrininae

Ctenella

Ctenella chagius Matthai

- G: Egmont (Matthai, 1928: 172, pl. 54, fig. 2. TYPE)

Family MUSSIDAE

Acanthastrea

Acanthastrea echinata (Dana)

- G: Salomon (Matthai, 1914: 110, as Favia hemprichii. See Wells, 1954: 467)

Lobophyllia

- sr G: Peros Banhos - Ile Diamant 15fms (27m), and Ile du Coin 5-10 fms (7-18m) (Gardiner & Cooper, 1907: 28 and 38 respectively, as Mussa)
sr Salomon, down to 10fms (18m) (Gardiner, 1936: 408-409)

Lobophyllia corymbosa (Forskål)

- sr B: Diego Garcia (Bourne, 1888: 450, as Mussa corymbosa. See synonymy Matthai, 1928: 210)
G: Diego Garcia (Matthai, 1928: 210)
Peros Banhos - Ile du Coin (ibid. Also pl. 60, fig. 6)
Salomon (sr - Gardiner, 1936: 407; Matthai, 1928: 210)

Lobophyllia costata (Dana)

- G: Peros Banhos - Ile du Coin (Matthai, 1928: 216, pl. 47, fig. 8). The caption to pl. 28, fig. 1 of this species gives "Chagos: Salomon" for the locality. This is not mentioned in text. The British Museum (Natural History)

register No. of the specimen indicates that it can be neither Bourne's nor Gardiner's material because it was registered before either expedition. It does however accord with Guppy's Salomon Is. material. Hence for "Salomon" read "Solomons".)

T: Diego Garcia - lagoon flats immediately north of East Point.

Symphyllia

Symphyllia nobilis

G: Egmont (Matthai, 1928: 227, pl. 31, fig. 1. For "Chagos: Salomon" in caption to pl. 30, fig. 4, read "Solomon Is." See note under Lobophyllia costata above.)

Suborder	<u>Caryophylliina</u>
Family	<u>CARYOPHYLLIIDAE</u>
Subfamily	<u>Eusmiliinae</u>

Euphyllia

sr G: Salomon, down to 10fms (19m) (Gardiner, 1936: 409)

Plerogyra

Plerogyra sinuosa (Dana)

G: Peros Banhos - Ile du Coin (Matthai, 1928: 184)

Suborder	<u>Dendrophylliina</u>
Family	<u>DENDROPHYLLIIDAE</u>

Balanophyllia

Balanophyllia regularis (Gardiner)

G: Peros Banhos - Ile du Coin (Horst, 1926: 50)
Salomon (ibid.)

Dendrophyllia

Dendrophyllia aurea (Quoy & Gaimard)

G: Salomon (Horst, 1926: 46)

Turbinaria

* Turbinaria sp.cf. irregularis Bernard

T: Diego Garcia - lagoon reef East Point

Turbinaria globularis Bernard

B: Diego Garcia (Bernard, 1896: 68, pl. 20, pl. 32, fig. 20. TYPE)

Subclass	OCTOCORALLIA
Order	Stolonifera
Family	<u>TUBIPORIDAE</u>

(*) Tubipora

- sr G: Egmont (Gardiner, 1936: 414)
 sr Peros Banhos - Ile du Coin, less than 4fms (7m) (Gardiner & Cooper, 1907: 38)
 sr Salomon (Gardiner, 1936: 406, 408)

(*) Tubipora musica (Linnaeus)

T: Diego Garcia - algal ridge North West Point. There being only one known species of Tubipora, the references without species names above, may be taken to indicate T. musica, and the recording of the actual species from Chagos is not completely new.

Order	Coenothecalia
Family	<u>HELIOPORIDAE</u>

Heliopora

- sr G: Peros Banhos (Gardiner, 1936: 423) - Ile du Coin, less than 4fms (7m) (Gardiner & Cooper, 1907: 38)
 sr Salomon (Gardiner, 1936: 406-409)

Heliopora coerulea (Pallas)

- sr G: Peros Banhos, Salomon (as above). There is only one known species of Heliopora, and the above references may be taken to be this species.

Class	HYDROZOA
Order	<u>Milleporina</u>
Family	<u>MILLEPORIDAE</u>

Millepora

- sr B: Diego Garcia (Bourne, 1888: 454)
 sr G: Egmont (Gardiner, 1936: 414)
 Peros Banhos - Ile du Coin, less than 4 fms (7m) (Gardiner and Cooper, 1907: 38)
 sr Salomon (Gardiner, 1936: 400-409)

Millepora platyphylla Hemprich & Ehrenberg

- B: Diego Garcia (Boschma, 1949: 665)
 T: Diego Garcia - windward reef South Point

Millepora tenera Boschma

- B: Diego Garcia (Boschma, 1949: 669)
 T: Diego Garcia - windward reef South Point

Order Stylasterina
 Family STYLASTERIDAE
 Subfamily Stylasterinae

Stylaster

?sr G: Salomon, 60-337fms (109-612m) (Gardiner, 1936: 412. Boschma, 1957 quotes Gardiner on p. 18 and comments, "Hickson & England, 1909, do not record a species of Stylaster from this locality; they list a coral from Salomon Atoll as Allopora sp.?" Gardiner's record thus appears doubtful.)

Allopora

Allopora sp.?

G: off Salomon, 60-120fms (109-219m) (Hickson & England, 1909: 346; Boschma, 1957: 30)

Cryptelia

Cryptelia ramosa Hickson & England

G: off Salomon, 120-150fms (219-274m) (Hickson & England, 1909: 351; Boschma, 1957: 38)

Conopora

Conopora tenuis Moseley

G: off Salomon, 120-150fms (219-274m) (Hickson & England, 1909: 351; Boschma, 1957: 39)

Subfamily Distichoporinae

Distichopora

sr G: off Salomon, 60-337fms (109-612m) (Gardiner, 1936: 412. Boschma, 1957: 47 implies in his comment on Gardiner's record that this was D. violacea because Hickson & England 1909 record this species from shallow water, Egmont. However, these authors record D. profunda, from deep water off Salomon, and this appears to be a more likely interpretation.)

Distichopora violacea (Pallas)

G: Egmont - shallow water (Hickson & England, 1909: 346; Boschma, 1957: 49; Boschma, 1959: 134. Also see note above)

Distichopora profunda Hickson & England

G: off Salomon, 120-150fms (219-274m) (Hickson & England, 1909: 348, pl. 44, text-figs. 4-7, TYPE; Boschma, 1957: 46; Boschma, 1959: 162. Also see note above.)

Distichopora sp.

T: Diego Garcia - windward reef South Point.

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